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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,360	01/23/2002	Cyril Allouche	FR010002	9275
24737	7590	01/19/2005	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			CHOOBIN, BARRY	
			ART UNIT	PAPER NUMBER
			2625	

DATE MAILED: 01/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/055,360	Applicant(s) ALLOUCHE, CYRIL	
	Examiner Barry Choobin	Art Unit 2625	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 14 is/are rejected.
- 7) ☒ Claim(s) 12-13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/1/02; 1/23/02</u> . | 6) <input type="checkbox"/> Other: ____.  |

### **DETAILED ACTION**

1. The information disclosure statement (IDS) submitted on March 1, 2002 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.
2. The information disclosure statement (IDS) submitted on January 23, 2002 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Specification***

3. The abstract of the disclosure is objected to because it contains more than one paragraph. Correction is required. See MPEP § 608.01(b).

NOTE: Specification lacks heading for various section of specification such as BACKGROUND OF THE INVENTION, FIELD OF THE INVENTION, BACKGROUND OF THE RELATED ART, SUMMARY OF THE INVENTION, BRIEF DESCRIPTION OF THE DRAWINGS, and DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claim 3 and dependent claims thereof (claims 4-5) recite the limitation "the complex plane" in lines 2-3 of claim 3. There is insufficient antecedent basis for this limitation in the claim.
6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: in claim 14, it is not clear what is the relationship between an image processing apparatus as claimed in claim 7 with an image capture and processing apparatus and means for visual representation of the images.

### ***Double Patenting***

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1-2, 6, 7, 9 -11 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of copending Application No. 10/055,389 (hereafter, 389). Although the conflicting claims

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are not identical, they are not patentably distinct from each other because claims in instant application are merely a broader version of claims in copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 4 of copending Application, 389. Claim 1 in, 389 discloses a method of processing images belonging to a sequence of at least two images having a surface representing an organ or a part of an organ which is deformable over time and referred to as the organ surface (see claim 1, lines 1-3), said surface including characteristic points, denoted marked points, which correspond to each other from one image to another in the sequence, said method comprising steps of (claim 1, lines 3-4):

Calculating positions of the marked points on at least two images, successive or not (see claim 1, lines 6-7),

Determining parameters of an explicit mathematical expression of the deformation of the organ or part of the organ observed between the two images from positions in a set of marked points on the two images (claim 1, lines 8-10), said set of marked points containing the marked points present on the surface of the organ or at least the marked points present on part of the surface of the organ (this limitation is claimed in claim 4 of copending application, 389 wherein said set of marking points containing at least the marking points present on said surface).

Claim 2 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 2 of copending Application, 389. As to claim 2, copending application, 389 discloses an image processing method as claimed in Claim 1 (see claim 1 above), characterized in that said organ is marked by magnetic resonance spatial modulation, said marking being visible on the images in the form of marking lines, said marking lines deforming whilst following the deformation of the organ and being such that there exist points of intersection between said marking lines, said points of intersection being the marked points (see claim 2).

Claim 6 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims (1 and 4) of copending Application, 389.

As to claim 6, this claim is a form of an apparatus claim of claim 1. Accordingly claims 6 is analogues to claim 1 above and is similarly analyzed and rejected.

Claim 7 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 8 of copending Application, 389.

Claim 9 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 10 of copending

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Application, 389. Copending application, 389 recites in claim 10, an image processing apparatus comprising means for (Where means plus function language is used to define the characteristics of a machine or manufacture invention, claim limitations must be interpreted to read on only the structures or materials disclosed in the specification and "equivalents thereof." Here, "means for" invokes 112 sixth paragraph and is directed to disclosed and described structures or materials disclosed in the specification and "equivalents thereof"; the cited copending application meets the claim limitation by providing the equivalence of image processing device of instant application as depicted in fig.5 of instant application, in fig.3 in copending application) iterating the method described for two images, successive or not, in Claim 1 (see claim 1 above), on all the successive images in the image sequence. This claim (claim 9) corresponds to claim 10 in copending application, 389.

Claim 10 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 11 and 12 of copending Application, 389, wherein the parameters of the mathematical expression of the deformation corresponds to global movement being extracted from mathematical expression of the deformation in claim 11 of copending application.

Claim 11 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 8 and 12 of copending Application, 389.

As to claim 11, an image processing apparatus as claimed in Claim 7 (see claim 8 of copending application), comprising means (Where means plus function language is used to define the characteristics of a machine or manufacture invention, claim limitations must be interpreted to read on only the structures or materials disclosed in the specification and "equivalents thereof." Here, "means for" invokes 112 sixth paragraph and is directed to disclosed and described structures or materials disclosed in the specification and "equivalents thereof"; the cited copending application meets the claim limitation by providing the equivalence of image processing device of instant application as depicted in fig.5 of instant application, in fig.3 in copending application) for defining a structure per unit length (since claim 8 of copending application is dependent of claim 7 of copending application, accordingly by considering the limitations of dependent claim 7 of copending application in particular line 6 of claim 7, wherein defining a structure per unit length; this limitation is met.), Means for (Where means plus function language is used to define the characteristics of a machine or manufacture invention, claim limitations must be interpreted to read on only the structures or materials disclosed in the specification and "equivalents thereof." Here, "means for" invokes 112 sixth paragraph and is directed to disclosed and described structures or materials disclosed in the specification and "equivalents thereof"; the cited copending application meets the claim limitation by providing the equivalence of image processing device of instant application as depicted in fig.5 of instant application, in fig.3 in copending application) applying the mathematical expression of the deformation to said structure per unit length (claim 7, lines12-13) and



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means for (Where means plus function language is used to define the characteristics of a machine or manufacture invention, claim limitations must be interpreted to read on only the structures or materials disclosed in the specification and "equivalents thereof."

Here, "means for" invokes 112 sixth paragraph and is directed to disclosed and described structures or materials disclosed in the specification and "equivalents thereof"; the cited copending application meets the claim limitation by providing the equivalence of image processing device of instant application as depicted in fig.5 of instant application, in fig.3 in copending application) visualizing the deformation undergone by said structure per unit length (see claim 12 of copending application).

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 3 and 8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/055,389 in view of Chaikin et al (US 4,267,573).

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Copending application, 389 recites in claim 1 all of the limitations of claim 1 in instant application. However, copending application, 389 does not recite that the expression of the deformation is defined in the complex plane as is required by claim 3 in instant application.

On the other hand, Chaikin et al disclose an image processing system, comprising; an operation associated with rotation or dilation of an image (deformation) which is transformed into complex logarithmic plane (column 3, line 56 through column 4, line 36).

Copending application and Chaikin et al are combinable because they are from the same field of endeavor of image processing.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify the copending application with the defining the expression of the deformation in the complex plane as taught by Chaikin et al with copending application, 389.

The suggestion/motivation for doing so would have been to increase the simplicity and speed of the operation associated with image processing.

Therefore, it would have been obvious to combine the Chaikin et al with the copending application in order to obtain the invention as specified in claim 3.

As to claim 8, claim 8 is analogous to claim 3 in a form of image processing apparatus. Accordingly this claim is similarly analyzed and rejected as claim 3 (above).

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This is a provisional obviousness-type double patenting rejection.

***Allowable Subject Matter***

12. Claims 4, 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

13. Claims 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***CONTACT INFORMATION***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry Choobin whose telephone number is 703-306-5787. The examiner can normally be reached on M-F 7:30 AM to 18:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'B. Choobin', with a stylized flourish at the end.

Barry Choobin  
January 11, 2005